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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/529,825

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David W. Ashworth

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EXAMINER

SZNAIDMAN, MARCOS L

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/529,825	<b>Applicant(s)</b> ASHWORTH ET AL.	
	<b>Examiner</b> MARCOS SZNAIDMAN	<b>Art Unit</b> 1611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 22-35 is/are pending in the application.
- 4a) Of the above claim(s) 29-35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 22-28 is/are rejected.
- 7) ☒ Claim(s) 23 and 24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3 pages / 11/28/05</u> .                                      | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

This office action is in response to applicant's reply filed on April 3, 2008.

### ***Election/Restrictions***

Applicant's election of Group I (claims 22-28) in the reply filed on April 3, 2008 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

### ***Status of Claims***

Claims 22-35 are currently pending and are the subject of this office action.

Claims 29-35 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on April 3, 2008.

Claims 22-28 are presently under examination.

### ***Priority***

The present application is a 371 of PCT/GB03/04176 filed on 09/25/2003, and claims priority to foreign application UNITED KINGDOM 0222843.5 filed on 10/02/2002.

### ***Claim Objections***

Claims 23 and 24 are objected to because of the following informalities: claims 23 and 24 depend on claim 1 which was canceled. For examination purposes it was considered that claims 23 and 24 depend on claim 22. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 22 is rejected under 35 U.S.C. 102(b) as being anticipated by BASF AG (GB 815 538, cited by applicant).

Claim 22 recites a process for protecting an industrial material from fungal infestation of fungal growth, comprising contacting the industrial material with an effective amount of water-based composition comprising a potassium salt of N'-hydroxy-N-cyclohexyldiazonium oxide (KHDO) and water, wherein the water-based composition has a pH of at least 4, and thereby killing any fungus on or in the industrial material.

For claim 22, BASF AG teaches (see page 1, lines 61-79) a method for protecting substrates endangered by fungi, such as: paper, textiles, glue, leather, wood, pulp, etc (i.e. industrial materials) with N-cycloalkyl-N-nitroso-hydroxilamines like KHDO (see table 1, fifth compound from the top) in aqueous solution. Since KHDO is a

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slightly basic compound, when dissolved in water the pH of the solution will definitively be basic or slightly basic (i.e. pH more than 7)

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over BASF AG (GB 815 538, cited by applicant).

Claim 23 further limits claim 22, wherein the KHDO is the sole fungicidally active component of the water-based composition.

BASF AG teaches all the limitations of claim 23, except for KHDO being the sole fungicidally active component of the water-based composition. However BASF AG teaches that KHDO can be used as the sole fungicidally active component in a talc mixture (see example 1 and table 1 (pages 1 and 2)). BASF AG also teaches that KHDO can be used in water in combination with other fungicidal agents.

Since BASF AG teaches that KHDO can be used as the sole fungicidally active compound with talc as an excipient, at the time of the invention it would have been *prima facie* obvious for a person of ordinary skill in the art to use KHDO as the sole fungicidally active compound in any media including water, with the motivation of obtaining a KHDO antifungal water solution, thus resulting in the practice of claim 23 with a reasonable expectation of success.

Claims 24-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over BASF AG (GB 815,538, cited by applicant) as applied to claim 22 above, and further in view of Gazzard et. al. (US 3,970,755).

Claims 24 and 25 further limit claim 22, wherein the water based composition further comprises a second fungicidally active component selected from the group consisting of: BNPD, BIT, PVA and BACI.

BASF AG teaches all the limitations of claims 24 and 25, except for the second fungicidally active compound. However, Gazzard et. al. teach that BIT can be used as a fungicidal (see column 4, example 3, lines 48-51) in industrial materials (e.g. nylon meshes, see line 52).

At the time of the invention it would have been *prima facie* obvious for a person of ordinary skill in the art to prevent industrial material from fungal infestation combining two compositions (KHDO and BIT) each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose. The idea of combining them flows logically from their having been individually taught in the prior art (see MPEP 2144.06). *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980). All this would result in the practice of claims 24 and 25 with a reasonable expectation of success.

Claims 26 and 27 recite the same limitations as claims 24 and 25, except that the process is for protecting an industrial material from microbial infestation instead of

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fungus infestation. Since fungus is considered a type of microbe, the same rejection stated for claims 24 and 25 is valid for claims 26 and 27.

Claim 28, further limits claim 26, wherein microorganisms are killed. By definition an antimicrobial is a substance that kills or inhibits the growth of microbes, so the phrase in claim 26: "wherein microorganisms are killed is considered an inherent property of the method described in claim 26 (i.e. it was already present in the prior art, even though the prior art might not recognize that property). In other words, by practicing the invention of BASF AG and Gazzard et. al.: "protecting industrial materials from fungal or microbial infestation with a mixture of KHDO and BIT", one would be practicing the invention of claim 28: "killing microorganisms with a mixture of KHDO and BIT".

### ***Conclusion***

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARCOS SZNAIDMAN whose telephone number is (571)270-3498. The examiner can normally be reached on Monday through Thursday 8 AM to 6 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sharmila G. Landau can be reached on 571 272-0614. The fax phone



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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MARCOS SZNAIDMAN/  
Examiner, Art Unit 1611  
July 28, 2008

/Sharmila Gollamudi Landau/  
Supervisory Patent Examiner, Art Unit 1611